REMARKS

Claims 1-30 have been cancelled in favor of new Claims 31-44. The new claims are based in part on previously presented Claims 11 and 20-28; page 3, lines 18-26 of the specification and page 4, lines 14-15 of the specification.

In the previous Office Action, the claims were rejected as being anticipated by Ellinas, U.S. Patent No. 6 331 905. Ellinas is different from the invention of Claims 31-44 for the following reasons.

In Ellinas, protection cycles are organized as simple directed cycles 223, 225, 227, 229 as illustrated in the graph representation of Fig. 2A. The nodes 201, 203, etc. contain mapping data that indicate which simple directed cycles are used to form a cycle group to route data around a failed switch. Cycle groups are illustrated for example in Figs. 3A and 3B, and the manner of finding cycle groups is shown in the flow chart of Fig. 2B. When a failure occurs, the switch uses the mapping data to break the protection cycles and join them into cycle groups to route data around the failure. The failure of an entire node is described at col. 19, lines 43-45 of Ellinas.

The claimed invention differs from Ellinas in a number of ways.

First, referring to claim 31, the preconfigured cycles of the present invention are not the same as either Ellinas' protection cycles or his cycle groups. The protection cycles of Ellinas are simple cycles that do not provide the required routes around a node. They merely provide building blocks so that when a failure occurs they may be joined together into a cycle group by breaking the connections in the protection cycles and joining them as cycle groups. Hence, the cycle groups of Ellinas are not preconfigured, and the protection cycles are not sufficient to protect the node since they must be concatenated or linked.

Second, the nodes in a cycle of Ellinas cannot have "each of the plural nodes in the preconfigured cycle comprising a router table, each router table identifying the plural nodes of the preconfigured cycle" as recited in Claim 31, since the mapping data of Ellinas is associated with a single node and its local protection cycles. Importantly, until a failure occurs, the switch of Ellinas that does the re-routing of the data packet cannot know the path the data packet will be forced to follow. Rather, Ellinas builds the path upon the failure. This can be illustrated with respect to the look-up table of Fig. 15, cited by the examiner as an example of a routing table as claimed.

Fig. 15 shows in the left column where data is coming from and going to, and entries in the table show the protection switch configurations that are used to concatenate the protection cycles to form cycle groups. When data is routed upon a failure, the look-up table is consulted and the necessary connections made. Each node has its own associated look-up table. This is completely different from the claimed invention in which the routing table in each node of the preconfigured cycle identifies the nodes of the preconfigured cycle. The routing table of the instant invention would not look like the complex protection switch configuration table of Fig. 15.

Third, neither the protection cycles nor the cycle groups of Ellinas provide "the plural nodes of the preconfigured cycle including all nodes of the telecommunications network that are directly connected to the specific node" (the specific node is the node being protected) recited in Claim 31. The protection cycles of Ellinas are simple cycles which only contain two neighboring nodes (see Fig. 2A) and the cycle groups likewise are not specified to include all directly connected nodes (Fig. 3A, 3B). Ellinas does not discuss pre-arranging (i.e. before failure) a preconfigured cycle that

includes all nodes directly connected to a node being protected, whether or not it is a switch in a node or the entire node that is being protected.

Fourth, Ellinas does not show "a preconfigured cycle for a specific node of the telecommunications network that is not in the preconfigured cycle" as recited in Claim 31. Since the data is routed into and out of the node itself, the node in which a failure occurs is part of a protection cycle. Ellinas at col. 19, lines 34-41, clearly does not teach a preconfigured cycle, since the protection cycles are broken and concatenated into a cycle group. A cycle formed by making and breaking connections is not a preconfigured cycle. Moreover, the present invention does not require a signaling mechanism as in Ellinas (col. 19, lines 48-51) since each node of the preconfigured cycle already has the cycle path in its routing table, and once a data packet is routed onto the path, it can easily follow the preconfigured cycle from node to node without any signaling to make and break connections.

Claim 32 further distinguishes Ellinas by reciting a preconfigured cycle for each node of the network.

Claim 33 further distinguishes Ellinas by providing a minimum number of preconfigured cycles for each node.

Claims 34-36 are method claims that correspond to claims 31-33. Claims 37-44 contain additional limitations that distinguish Ellinas.

The Examiner also cited Olson in combination with Ellinas to reject cancelled claim 23, the corresponding limitations of which now appear in pending claim 39. This rejection is moot because there is no reason to combine Olson with Ellinas. Further, Ellinas is irrelevant for the reasons given above.

The above discussed differences between Applicants' claimed invention and Ellinas are completely clear. Nothing in Ellinas suggests the approach taken by the Applicants. In fact, Ellinas teaches a completely opposite and more

complicated approach to protection against node failure than Applicants' claimed invention.

In view of the foregoing discussion, all of Claims 31-44 are believed to be patentably distinguishable from the prior art of record and therefore, are believed in condition for allowance. Further and favorable consideration of this application is respectfully solicited.

Respectfully submitted,

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Encl: None

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